

STATE OF CALIFORNIA
FISH AND GAME COMMISSION
INITIAL STATEMENT OF REASONS FOR PROPOSED REGULATORY ACTION
(Pre-publication of Notice Statement)

Amend Section 120.3 and Add Section 120.45
Title 14, California Code of Regulations
Re: Spot Prawn Trawling

I. Date of Initial Statement of Reasons: December 20, 2002

II. Dates and Locations of Scheduled Hearings:

(a) Notice Hearing: Date: December 20, 2002
Location: Sacramento, CA

(b) Adoption Hearing: Date: February 18, 2003
Location: Sacramento, CA

III. Description of Regulatory Action:

(a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

Under existing law (Section 8591, Fish and Game Code) the Commission has the authority to regulate the commercial harvest of spot prawn. Trawling for spot prawns is permitted in waters not less than 25 fathoms in depth and not nearer than three nautical miles distance from the nearest point of land on the mainland shore and from all offshore islands. In addition, trawling is prohibited within District 19A and the Cowcod Conservation Areas. Based on estimates of the species of groundfish declared as "overfished" by the Pacific Fishery Management Council (Council) that the spot prawn trawl fishery was taking as bycatch during its operations, the Commission took emergency action to close the fishery effective September 13, 2002 through the end of the regular season, October 31.

The spot prawn trawl season is closed from November 1 through January, but at its December 20, 2002 meeting the Commission changed the closed season to September 1 through the last day in February statewide. During this period loads of fish caught by trawl shall not contain more than 50 pounds without restriction or 15 percent by weight of spot prawns. All trawl nets used to fish spot prawns must be equipped with a functional finfish excluder with a minimum surface area of 36 square inches unless a double-walled bag or cod-end with a

minimum mesh size of three inches is used. Trawl nets with a single-walled cod-end shall be of any webbing not less than 1½ inches in length. Trawl nets with a double-walled cod-end shall not have webbing or a liner less than 3 inches in length, and the lines and cod-end shall be tied together along the rib lines.

Spot prawn regulations require a \$30 permit to take spot prawns with a trawl net. The trawl fishery is presently an open-access fishery. The Commission established a control date of January 1, 1999 for spot prawn, ridgeback and golden prawn trawl fisheries with the intention of establishing a restricted access program. A restricted access spot prawn trap fishery, with a two-tiered permit structure, began in April 2002.

The Department initiated an on-board observer program to address concerns about the level of bycatch taken in the spot prawn trawl and trap fisheries. Bycatch is defined in the Fish and Game Code (FGC) (Section 90.5) as fish or other marine life taken in a fishery but that are not the target of the fishery. Bycatch includes discards. Section 91 of the FGC defines discards as fish that are taken in a fishery but are not retained because they are of an undesirable species, size, sex, or quality, or because they are required by law not to be retained.

At-sea observations of the spot prawn trawl and trap fisheries were made over a one year period between 2000 and 2001 to acquire information on the relative amount and type of bycatch taken in these fisheries. The program was partially funded by a fee that was in effect from July 14, 2000 to March 31, 2001. The fee was \$250 for each spot prawn trap vessel and ranged from \$250 to \$1000 for each spot prawn trawl vessel, based on the total amount of spot prawns a vessel landed during 1998 or 1999 (whichever was higher).

The Department prepared a draft report on the results of this program, and then met with commercial spot prawn trawl and trap fishery representatives and environmental group representatives to receive their comments, which were incorporated in the report whenever possible. The Department submitted its report entitled "Results of California Department of Fish and Game Spot Prawn Trawl and Trap Fisheries Bycatch Observer Program 2000-2001" to the Commission at its August 2, 2002 meeting in San Luis Obispo.

The results are a snapshot of what goes on in a fishery that is characterized by variability on a daily and annual basis. Although certain requirements are standard, trawl gear is very individualized and differs from vessel to vessel. Operator experience is another major factor that affects the take of bycatch and is not easily quantified. However, the bycatch data from 86 tows that was obtained is the best information currently available for this fishery in California.

The National Marine Fisheries Service (NMFS) has determined the following rockfish species to be overfished and require rebuilding plans: bocaccio, canary, cowcod, darkblotched, widow, and yelloweye. Rebuilding plans have been developed by the Council for these species as required under the Magnuson-Stevens Fishery Conservation and Management Act. For 2002, the total Optimum Yield (OY) to achieve rebuilding for bocaccio was set at 100 metric tons for commercial and recreational fisheries. The commercial portion of the catch was 44 metric tons. The recreational fishery exceeded its OY of 56 metric tons at the end of April, while commercial landings through June 8 were about 21 metric tons, approximately half of the commercial allocation. At its June 2002 meeting, the Council recommended closing or restructuring fisheries that incidentally take bocaccio starting July 1, 2002 and also adopted a proposed total OY for bocaccio in 2003 ranging from 0 to 5.8 metric tons.

In 2002, the total OY for cowcod was 4.8 metric tons divided equally south and north of Point Conception. The same allocation for cowcod is expected in 2003. The OY for darkblotched rockfish was 168 metric tons in 2002, and commercial trawl landings of darkblotched rockfish are expected to meet or exceed the total OY by the end of the year. The OY for 2003 is expected to be in the range of 76 to 160 metric tons.

The total estimated bycatch of bocaccio in the spot prawn trawl fishery for the one-year observation period was approximately 4.6 metric tons. In the same period, the bycatch of cowcod rockfish was estimated to be 1.1 metric tons. These estimates are significant now, next year, and into the future given the current and proposed statewide OYs for these species. The estimated bycatch of 5.9 metric tons of darkblotched rockfish from the observation program is not considered significant at this time, but the status of the stock of this deepwater rockfish is poorly understood.

On July 1, 2002 a NMFS prohibition on the retention of all groundfish species taken in state trawl fisheries went into effect. Also effective July 1 for the rest of the year, the Council and the Department took action to prohibit both recreational and commercial fishing for lingcod and specified rockfish in waters greater than 20 fathoms in depth south of Cape Mendocino, Humboldt County (40 degrees 10 minutes North latitude).

For 2003, the Council has proposed a regulation to be implemented January 1 that would preclude all fishing for the 82 groundfish species on most of the continental shelf south of Cape Mendocino to protect bocaccio rockfish. Similarly, because of concerns for darkblotched rockfish, a major commercial fishing closure was implemented off California (north of Cape Mendocino), Oregon and Washington starting September 1, 2002.

Council fishery scientists are predicting that the recovery period for bocaccio and other overfished rockfishes could take decades. The rebuilding requirements for bocaccio and cowcod result in allowable catch levels that cannot support current directed fisheries for those species, let alone bycatch in other fisheries.

Due to the extremely high variability in bycatch among areas and vessels in the Department's Onboard Observer Program, there is no simple solution to reduce bycatch in the spot prawn trawl fishery. The Commission, at a special hearing on December 20, 2002 considered all of the options included in this proposed action and at that time chose only to shorten the open season for spot prawn trawling while directing staff to republish notice of these options for additional consideration before the season will reopen on March 1, 2003. This rulemaking presents a number of proposed management options for the Commission to consider individually or in combination. These options are a subset of those described in the Department's bycatch observation report. The options not included are either non-regulatory or cannot be implemented in a timely manner.

Option (1) - Trawl Permit Moratorium. Establish a moratorium on the issuance of new spot prawn trawl permits.

This option would prevent an increase in trawl fishing effort by fishermen who have not been issued a spot prawn trawl permit before September 1, 2002. This option alone does not affect the current level of bycatch, but does prevent any increase from new vessels. As groundfish regulations grow more restrictive, vessels continue to be displaced from groundfish fisheries. Additionally, in 2003, the state of Washington will prohibit the use of trawls to take spot prawns. Three trawl vessels could convert to traps or move south. The Oregon Department of Fish and Wildlife (ODFW) is planning to recommend a trap-only spot prawn fishery with a one year period to allow conversion to traps in 2003. The ODFW issued six trawl permits this year, and four of those vessels have previously fished or are currently fishing in California.

The permit for spot prawn trawling also allows the take of ridgeback and golden prawns. The bycatch in the ridgeback fishery has not been characterized. However, the industry and the Department believe this fishery is fully exploited and that additional effort in this fishery would not be beneficial for the resource or the industry. Golden prawns are only taken in small numbers when they are available, and there is no fleet of vessels that target this species.

Option (2) - Contract Observer Program. Implement a mandatory contract observer program for all spot prawn trawl vessels and require that an observer be on board as a permit condition.

This option would require the cost of an observer program, through a private or government contractor, to be borne by the permittees. At present funding and personnel levels, the Department does not have the resources to undertake such a program. Fewer than 25 spot prawn vessels landed more than 1,000 pounds of spot prawn in each of the past two years. It is unknown if these vessels could fully fund an observer program without additional funding sources. It would also take a number of months to plan and implement an observer program.

Option (3) - Trawl prohibition. Prohibit the use of trawl nets to take spot prawn.

Eliminating trawl gear would eliminate bycatch taken by the spot prawn trawl fishery, significantly reduce the total amount of bycatch associated with the spot prawn fishery, and will reduce any undetermined, negative impacts to spot prawn habitats from the use of bottom trawl nets and their associated rigging. A prohibition on trawling would likely cause significant adverse economic impacts to the trawl vessels which target spot prawn. A number of the spot prawn trawl vessels have also participated in trawl fisheries for California halibut, ridgeback prawn, pink shrimp, and sea cucumber. In addition, the fisheries for halibut and ridgeback prawn are still open-access and are available to trawl fishermen who were not previously involved in those fisheries. It is anticipated that some spot prawn trawl vessels would participate in these other fisheries. Since all these fisheries are fully exploited, increased effort would be expected to have detrimental effects on the fishing grounds, the targeted species, and the existing participants.

Currently, pink shrimp trawl vessels may possess and land not more than 1,500 pounds, multiplied by the number of days of the fishing trip, of incidentally caught fish with a few exceptions. Spot prawn is not excluded from this incidental catch. At present the extremely low value of pink shrimp (about \$.15 - .20 per pound), and the fact that there is only one pink shrimp processor remaining in California, has made it economically prohibitive to trawl for pink shrimp. However, if there is a prohibition on the take of spot prawns with trawl nets in a directed fishery, a corresponding prohibition is needed for the incidental take of spot prawns in the pink shrimp trawl fishery. Otherwise fishermen with pink shrimp trawl permits could target spot prawn under the guise of fishing for pink shrimp.

Option (4) - Trawl prohibition with trap conversion. Prohibit the use of trawl nets to take spot prawn and allow active spot prawn trawl vessels to join the existing restricted access trap fishery.

This option would prohibit the use of trawl nets to take spot prawn and would allow active spot prawn trawl vessels to convert to trap operations, providing they also were participants in the trawl fishery prior to the January 1, 1999 control date. Proposed criteria include requirements that a vessel owner has a 2002-2003 golden, spot, and ridgeback prawn trawl permit; that the vessel has been registered with the Department in each of the 1997-1998, 1998-1999, and 1999-2000 permit years; and that landings of spot prawns using trawl nets have been made on or before January 1, 1999. In addition it is proposed that at least one of the following landing requirements be met: 1) a minimum of (a range of 10 to 30) landings of spot prawns using trawl nets in each of the calendar years 1997, 1998, and 1999; 2) at least (a range of 2,000 to 7,000) pounds of spot prawns landed using trawl nets in each of the calendar years 1997, 1998, and 1999; or 3) at least (a range of 10,000 to 15,000) pounds of spot prawns landed using trawl nets in each of the calendar years 1998 and 1999. Spot prawn trap permits issued pursuant to these regulations would be Tier 3 permits and would be nontransferable under the proposed regulations. An individual who has been licensed as a commercial fisherman for at least 20 years, has participated in the commercial spot prawn trawl fishery for at least one of those years, and has made at least 20 landings of spot prawns using trawl nets totaling at least 10,000 pounds in one of those years would receive a Tier 3 permit.

Eliminating trawl gear would significantly reduce the total amount of bycatch associated with the spot prawn fishery and would reduce any undetermined, negative impacts to spot prawn habitat from the use of bottom trawl nets and their associated rigging. However, the existing trap fishery is considered to be at or near capacity, and a gear conversion from trawl to trap gear could result in overcrowding in the existing trapping grounds and negatively impact the livelihood of existing trap fishermen. When a restricted access program for the trap fishery was implemented in April 2002, a number of participants did not meet the qualifying criteria and were eliminated from the fishery. This occurred because one goal of the restricted access program is to match the level of effort with the harvestable resource so a sustainable fishery is ensured.

It is not correct to assume that trapping could occur effectively throughout existing trawl grounds if trawling were prohibited. The density of spot prawns in trawl grounds is likely less than that in trapping grounds, and trapping in these areas may not be economically feasible. Fishermen converting to traps would have to invest a significant amount in new gear and may not be able to achieve the same level of catch, resulting in a loss of income. The price for prawns taken by traps is usually not greater than the price for trawled prawns due to refrigeration and other improvements in trawl operations. Existing trap fishermen could have more competition for the same amount of prawn. Traps

are generally less efficient than trawls because the trawls can fish a large area during a single tow of the net.

Adding trawl fishermen, who may have no trapping experience, to the trap fishery has potential negative, if short term, implications due to more lost traps and tangled gear. In addition, trap vessels tend to be medium range vessels capable of high speeds and maneuverability. Trawl vessels are often slow and designed to pull a net; many are not easily maneuverable or designed to set strings of traps. Many of the older and smaller vessels could not easily be converted into trap vessels.

A conversion of trawl permits to trap permits could also necessitate a revision of the spot prawn trap fishery regulations related to capacity goal. The capacity goal for Tier 1 restricted access permits is 17 and 18 have been issued this fishing season, along with 4 nontransferable Tier 2 permits. Given that the active spot prawn trawl fishery consists of at least 20 vessels that landed over 1,000 pounds in 2001 (as described in the Department's report), the addition of vessels converting from trawl to trap could double the size of the current trap fleet.

Option (5) - Depth Restriction. Establish a minimum depth restriction of 150 fathoms south of Point Reyes (Marin County) and 250 fathoms north of Point Reyes for spot prawn trawling.

The bycatch of overfished rockfish species occurs in depth ranges that those species are known to inhabit. In northern California, darkblotched rockfish, an overfished species, are typically encountered at depths between 100 and 200 fathoms along the continental shelf. Adults have been observed resting on the bottom, making them vulnerable to harvest by trawl gear. A depth closure out to 250 fathoms north of Point Reyes would eliminate or minimize the bycatch of darkblotched in this fishery.

Another overfished species, bocaccio, is widespread in central and southern California in a broad range of depths from 30 to 150 fathoms. A depth closure out to 150 fathoms south of Point Reyes would minimize the bycatch of bocaccio rockfish in this fishery. Exclusion from this zone would also minimize bycatch of another overfished rockfish, cowcod, whose center of distribution is southern California at the same depth range.

These depth restrictions would effectively eliminate the spot prawn trawl fishery north of Point Reyes and would significantly and negatively impact the fishery south of Point Reyes. Approximately 90 percent of the observed tows during the Department's study occurred in depths less than 150 fathoms.

Option (6a & 6b) - Gear Restrictions.

6a. Roller Gear Restriction. Prohibit the use of large (greater than 8-inch diameter) roller gear.

Gear with a maximum footrope diameter of 8 inches or less is referred to in federal regulations as small-footrope gear. Rockfish are most frequently associated with rocky habitat. This habitat quickly tears up trawl gear that is not designed for use in such areas. To gain access to rocky areas, some fishermen use gear configured with 2 to 3 foot diameter truck tires protecting the trawl footropes. Using tires and other types of large rollers allows the trawl net to be towed through very rocky areas with far less chance of damaging or snagging the net or losing the net along with the trawl doors and cables. It also increases the likelihood of taking rockfish as bycatch.

A small roller gear requirement would confine the spot prawn trawl fishery to low relief areas where there is less rocky habitat and the likelihood of taking rockfish as bycatch would be reduced. It would also reduce potential damage to high relief habitat areas. The Council already requires small footrope gear to be used in federal groundfish fisheries.

6b. Hard grate excluder. Require all spot prawn trawl vessels to use hard grate excluders in their nets when fishing.

All trawl nets used to fish spot prawns must be equipped with a functional finfish excluder with a minimum surface area of 36 square inches unless a double-walled cod-end with a minimum mesh size of three inches is used. The ODFW found through logbook and fish ticket analysis in the pink shrimp fishery that the fisheye excluder appeared to be much less effective at excluding rockfish than the Nordmore Grate and the Soft-Panel Excluder. All three devices are known as bycatch reduction devices or BRDs. Wildlife enforcement staff in both Oregon and Washington have found that the fisheye excluder is also easily disabled by fishermen. There is now enough evidence in the pink shrimp fishery to suggest that a hard grate excluder and modified versions of it are the most effective devices for reducing rockfish bycatch. The Council has recommended allowing the pink shrimp trawl fishery to continue next year with a requirement for hard grate finfish excluders in its nets. Prior to the use of BRDs, this fishery had a large bycatch of groundfish, including overfished species.

The grate consists of a series of rigid or semi-rigid vertical bars that form a panel which guides finfish out of an escape hole located in top of the net. The device may include a funnel to concentrate catch near the bottom of the panel to facilitate sorting, but is not a required component of the device. Although there is some amount of shrimp loss, this option allows the trawlers to continue to fish.

This device is probably not effective at excluding juvenile rockfish because these fish are small enough to go through the grate and into the net.

Option (7) - Seasonal Closure. Increase the closed season for spot prawn trawling from six months to seven, eight, nine or ten months.

The current spot prawn trawl season is closed for three months from November 1 through January 31. In December 2002 the Commission took action to close the fishery for an additional three months and when those regulations become effective trawling will be allowed for only six months a year. Under this option, the spot prawn resource would benefit from reduced effort, the amount of bycatch would likely be reduced and the impacts of trawling on hard bottom would be reduced. This option will allow the Commission to consider a range of months for the closed season. The closed season adopted in December 2002, from September through February, will protect spot prawns at the beginning of their spawning season and for an additional month at the end of the spawning season. September and October are usually good weather months on the west coast. In 2001 almost 30 percent of spot prawn trawl landings occurred in these two months. A seven, eight, nine or ten-month closed season that includes two of the most productive months of the fishery would result in a reduction of bycatch, but could have negative economic impacts on the trawl fishermen and their markets. The Commission could also restore September and/or October to the open season.

Option (8) - Vessel Monitoring System. Require spot prawn trawl vessels to use a vessel monitoring system (VMS) when fishing to ensure compliance with depth restrictions and area closures. This regulation would only become effective when the federal government has an operational program to monitor vessels equipped with these systems.

There are now vessel monitoring systems available for purchase by the fishing industry. When installed on a vessel, these devices use the existing global positioning satellite system to locate the vessel and relay its position to a receiving unit. For the VMS to function as a monitoring device there has to be a functional receiving unit. The NMFS has plans to set up a program where receiving units could be used to monitor fishing vessels in U.S. Exclusive Economic Zone (EEZ). Until an operational monitoring program is in place, the purchase of a VMS unit is an unnecessary expense for a fishing vessel. However, the selection of this option, which could be implemented with the initiation of a federal monitoring program, would lay the framework for an accurate tracking system. The system would not require the deployment of vessels and planes for surveillance, and it would provide complete coverage of all the vessels fishing in the EEZ off the west coast of the U.S. at all times.

(b) Authority and Reference Sections from Fish and Game Code for Regulation:

Authority: Sections 710.7, 711, 8591 and 8842, Fish and Game Code.

Reference: Sections 710.7, 711, 8140 and 8842, Fish and Game Code.

(c) Specific Technology or Equipment Required by Regulatory Change:

Option 6B would require the installation of a hard grate finfish excluder in any trawl net used to take spot prawns. These devices are existing technology and should be relatively easily installed. Some fishermen are already voluntarily using them.

(d) Identification of Reports or Documents Supporting Regulation Change:

"Results of California Department of Fish and Game Spot Prawn Trawl and Trap Fisheries Bycatch Observer Program 2000-2001", presented to the Fish and Game Commission at its August 2, 2002 meeting in San Luis Obispo.

(e) Public Discussions of Proposed Regulations Prior to Notice Publication:

Three meetings to discuss the draft bycatch observations report were held at Department offices with the opportunity for interested parties to join the discussion by phone. Each meeting targeted a specific group of representatives. Comments were received on management options presented in the report; a subset of these options are been considered in this regulatory proposal.

The Department presented a summary of the results of its bycatch observer program with all the management recommendations in this document to the Fish and Game Commission at its August 2, 2002 meeting in San Luis Obispo.

The Commission held a special meeting on December 20, 2002 that included public and Department testimony on all of these options. The Commission at that time adopted regulations that increased the closed season from three to six months and directed the Department to work with the spot prawn trawl industry to consider specifics for an industry financed observer program and directed staff to publish notice to reconsider all of the options.

IV. Description of Reasonable Alternatives to Regulatory Action:

(a) Alternatives to Regulation Change:

The proposed regulations are presented as a series of options which include alternatives.

(b) No Change Alternative:

If the spot prawn trawl fishery is allowed to continue without change an unacceptable amount of depleted groundfish will be taken. In the Department's observation program these groundfish species included bocaccio, cowcod, darkblotched rockfish and hake. For bocaccio, the estimated annual bycatch of 4.6 metric tons could exceed the total OY for California in 2003. Bocaccio is currently a candidate species for federal listing under the Endangered Species Act. Allowing this fishery to continue without change would undermine the federal rebuilding plans for a number of overfished species.

(c) Consideration of Alternatives:

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory options.

V. Mitigation Measures Required by Regulatory Action:

The proposed regulatory action will have no negative impact on the environment; therefore, no mitigation measures are needed.

VI. Impact of Regulatory Action:

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States.

Each spot prawn trawler or buyer is considered a business. Spot prawn are landed either live or dead, but the live product demands a much greater price and is the preferred method of landing. In 2000 and 2001, 39 and 43 trawl vessels, respectively, landed spot prawn in California. Of those vessels, 22 and 21, respectively, landed more than 1,000 pounds of spot prawn at an average price of \$7.00/ pound (live). The estimated ex-vessel value of the spot prawn

trawl fishery was \$1.4 million in 2001. The estimated loss to the fishery participants from a September-October closure alone was \$0.4 million based on the ex-vessel value of spot prawn and seasonal trends in catch and effort. In addition to losses incurred by fishermen due to their inability to provide their product, California buyers, processors and consumers will suffer additional losses which are not easily quantified.

In recent years, a number of these vessels have also participated in other state-managed trawl fisheries for pink shrimp, California halibut, ridgeback prawn, and sea cucumber (the trawl fisheries). Although pink shrimp and sea cucumber are restricted access fisheries, the other two are open access. It is anticipated that a number of the affected spot prawn vessels would resume participation or participate more actively in these other fisheries if a prohibition on trawling went into effect. Increased participation in the other state-managed trawl fisheries would likely have a negative impact of unknown degree on the halibut and ridgeback trawl fisheries, and to a lesser degree pink shrimp and sea cucumbers. These fisheries are already fully exploited and additional effort will cause decreased success in the remaining trawl fisheries.

A vessel is a significant liability to the owner when it is not being used to fish. There are always berthing and maintenance fees. There is no resale value on a trawl vessel that can no longer be used to fish. Therefore cashing out is not an option for a fisherman with a trawl vessel and no permit guaranteeing a place in an existing fishery.

Conversion of trawl vessels to trap vessels would have a negative effect on the existing trap fishery participants and would also result in reduced income to the fishermen converting to a new gear type. The initial investment for each trap and associated rigging could run \$35 to \$75 per trap.

As opposed to a complete prohibition on spot prawn trawl activity, a depth closure would allow the larger trawl vessels (approximately 50 feet in length or greater), the ones that usually make the largest landings, to continue to operate, although on a limited basis. Results from the bycatch observer study showed that approximately 90 percent of all observed trawl tows occurred in water less than 150 fathoms deep. Small trawl vessels can not operate beyond the depth closure because of size, power and stability limitations.

A moratorium on new permits is not expected to have negative impacts on business. However, a contract observer program would be costly for such a small fleet of vessels. Contract observers can easily cost from \$300 to \$500 a day. A portion of the fleet would not be able to operate with the additional cost of such an observer program.

The gear restrictions being proposed might result in a reduced take of spot prawn. However, fish bycatch in the net is detrimental to the prawns, so there could also be a positive effect that offsets any shrimp loss. There would be an initial investment to convert to a small footrope and/or install a hard grate excluder that would be difficult to quantify, although it is not expected to be prohibitive.

A seven, eight, nine or ten-month closed season would have a detrimental effect on trawl participants. The amount of income each trawl fisherman would lose during an additional closure is not quantifiable, but could make the fishery economically unviable for some participants, especially those with smaller vessels.

A vessel monitoring system, depending on the model selected, would range in cost between \$1700 and \$2700. This would be a one-time cost that would be amortized over time.

- (b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

See discussion under VI(a) above.

- (c) Cost Impacts on a Representative Private Person or Business:

See discussion under VI(a) above for possible cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

- (d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State: None.
- (e) Other Nondiscretionary Costs/Savings to Local Agencies: None.
- (f) Programs Mandated on Local Agencies or School Districts: None.
- (g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4: None.
- (h) Effect on Housing Costs: None.

Informative Digest/Policy Statement Overview

The spot prawn trawl fishery is open-access and is closed from November 1 through January 31 statewide. The Commission took action on December 20, 2002 to increase the closed season to six months, from September 1 through the last day in February. The Department's report, *Results of California Department of Fish and Game Spot Prawn Trawl and Trap Fisheries Observer Program 2000-2001*, estimated a total bycatch in the trawl fishery of 5 tons of bocaccio, 1.2 tons of cowcod, and 6.5 tons of darkblotched rockfish in a one-year period. This level of bycatch of these overfished rockfish species is considered unacceptable.

The Commission is considering the following regulatory options, individually or in combination, for implementation by March 1, 2003, the reopening of the spot prawn trawl season:

- a moratorium on the issuance of new spot, ridgeback, and golden prawn trawl permits (these species are combined under a single permit);
- a requirement that all spot prawn trawl vessels participate in a contract observer program;
- a prohibition on the use of trawl nets to take spot prawn;
- a prohibition on the use of trawl nets to take spot prawn with the allowance of a conversion to trap fishing, subject to certain minimum landing requirements from the trawl fishery during the 1997 to 1999 window period;
- the establishment of a minimum depth restriction for spot prawn trawling south and north of Point Reyes at 150 fathoms and 250 fathoms, respectively;
- a requirement that all spot prawn trawl vessels use small roller gear (8-inch diameter or smaller) and/or hard grate excluders in their nets;
- the establishment of a seven, eight, nine or ten-month closed season for spot prawn trawling that includes as a minimum the months of November through the end of February; and
- a requirement that all spot prawn trawl vessels be equipped with a vessel monitoring system when the federal government has an operational monitoring program.